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I am pleased to submit the 2000 Fresno County Agricultural Crop and Livestock Report. This annual compilation presents statistical data pertaining to the acreage, yield, and gross value of Fresno County agricultural products.

The total gross production value of Fresno County agricultural commodities in 2000 was \$3,427,400,400. This represents a 4 percent decrease from the 1999 gross production value. It must be emphasized that the values presented in this report reflect gross values only, and do not in any manner reflect net income or loss to producers.

Agriculture continues as the major industry in Fresno County and is a driving force in the county's economy. Every dollar received by Fresno County producers results in the economic extension benefit of three and one-half dollars to the total economy of the county.

For the first time in Fresno County's history, the raisin industry has entered mandatory arbitration because growers and packers were unable to agree upon a price. Therefore, the total reported gross value of this report should be considered as an estimate, pending resolution of the arbitration. The final agreed-upon price for raisins, as well as a revised total gross production value, will be reported in the 2001 Crop Report.

I sincerely appreciate the professional and dedicated work performed by Deputy Agricultural Commissioner/Sealer Dennis C. Plann; Supervising Agricultural/Standards Specialist Bruce Clayton; Agricultural/Standards Specialists Scotti Walker and Jennifer Fulbright; Seasonal Agricultural/Standards Specialist Cézanne Baker, as well as the rest of my staff at the Department of Agriculture for the preparation of this report.

My thanks to the many individuals, related agencies, and members of the agricultural industry for their contributions to the compilation of this report.

Sincerely,

Jerry Prieto, Jr.
Agricultural Commissioner/Sealer

*"From his war with the vine and tractor,
both with and against them, the farmer at
last wins his war with himself,
and like his perfect machine and vines realizes
that he too has at last become consummate
and unchanging and for the ages."*

Victor Davis Hanson

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This report is also available at our internet site:
<http://www.fresno.ca.gov/4010/agwelcm.htm>

FRESNO COUNTY'S 10 LEADING CROPS

Crop	2000 Rank	2000 Dollar Value	1999 Rank	1990 Rank	1980 Rank
GRAPES	1	\$ 642,385,000	1	1	1
POULTRY	2	400,065,000	2	+	+
COTTON	3	354,440,000	3	2	2
TOMATOES	4	279,754,000	4	3	6
MILK	5	198,821,000	5	5	4
CATTLE AND CALVES	6	186,734,000	7	6	3
ALMONDS	7	117,983,000	8	14	12
HEAD LETTUCE	8	109,032,000	11*	11	16
PLUMS	9	96,760,000	10*	7	7
PEACHES	10	<u>95,120,000</u>	9*	9	13
TOP TEN TOTAL		\$2,481,094,000			

+ Not previously combined for ranking purposes

* Revised

2000 Highlights in Retrospect

January:

Peach, plum, nectarine, and almond growers were pruning and shredding brush. Grapevines were being pruned, canes tied, brush shredded, and herbicides applied. Birds caused significant damage to young seedlings in sugar beet fields. Strawberry fields were being mowed back and plastic tarps laid down. Processing tomato fields were being bedded up and fumigated. Lettuce, garlic, and onion fields were growing slowly due to cold weather and lack of rain. Rain in the latter part of the month caused some rust damage to garlic fields. Broccoli, napa cabbage, cauliflower, greens, turnips, and a variety of oriental vegetables were harvested.

February:

Cotton growers were preparing fields for planting. Grape growers continued to prune, tie canes, and apply herbicides for weed control. Early varieties of stone fruit began to bloom. Growers were applying bloom spray to stone fruit and apple orchards to prevent fungal diseases. Navel oranges and tangelos were harvested between rainstorms. Sugar beet growers used hazing techniques to protect seedlings from birds. Growth in garlic and onion fields slowed due to cooler weather. Lettuce was hand weeded, thinned, and treated for mildew. Asparagus, artichoke, broccoli, bok choy, and greens were harvested. On February 27, 2000, a storm front that moved across Fresno County brought thunder, lightning, heavy rain, hail, and tornado sightings. Overall, this storm caused only minimal crop damage.

March:

Most field work came to a halt due to wet conditions. Alfalfa hay fields were treated for weevils and aphids. Cotton planting started and beds were treated for weeds by air. Bud break began in grapes. The head lettuce harvest began. Apricots, cherries, peaches, plums, and nectarines were in bloom. Almonds were nearly done blooming and had started to leaf out. The navel orange and tangelo harvests continued. Citrus and olive growers began to prune trees. Due to rain, some dairies were spreading out straw in wet, muddy corrals. Summer vegetables were planted. Oriental vegetables were harvested.

April:

Small grain fields were maturing and showing good growth. Cotton was planted and growers were applying insecticides to their fields. Grape vineyards were leafing out and growers applied sulfur to control mildew. Cherries were being harvested. Some early varieties stone fruit were harvested. Stone fruit growers were also thinning and treating orchards for scale and worms. Fig and pistachio trees were leafing out. The lettuce harvest peaked this month and slowed down with minimal problems. Sweet corn and melons were planted. Strawberries were in full bloom; early rainstorms resulted in damage to fruit. Beehives were placed in citrus orchards that were in full bloom. The valencia orange harvest started. The oriental vegetable harvest continued while summer vegetables were being planted.

May:

Oat hay, wheat forage, and alfalfa hay were cut and baled. Cotton planting was completed and earlier planted fields were showing good growth. Rice was planted. Sugar beets showed good growth. Grape growers continued to treat vineyards for mildew, leafhoppers, lepidopterous pests, and weeds. Apricots, apriums, cherries, peaches, nectarines, plums, and pluots were harvested. Pomegranates showed early stages of bloom. Strawberries, blackberries, boysenberries, and blueberries were being harvested. Tomato fields were weeded and fertilized. Basil, broccoli, beets, cabbage, carrots, mustard and collard greens, onions, squash, sugar and snap peas, radishes, spinach, and turnips were also harvested. Navel and valencia oranges were harvested.

June:

A surprise rainstorm resulted in some damage to oat and alfalfa hay. The storm forced growers to re-bag onions that were drying in the fields. Growth in small grains slowed due to poor weather. Cotton plants started to bloom. Grape growers treated vineyards for mildew and insects. Stone fruit was harvested and some orchards were experiencing brown rot and worm problems. Melon fields were blooming and tomatoes were growing well. Sweet corn growers applied insecticides. Garlic fields and almond orchards were prepared for harvest. Cantaloupe and processing tomato harvests started. Harvesting of strawberries, blackberries, boysenberries, and blueberries continued, while strawberry growers began to replant. Other vegetables being harvested were beans, bittermelon, cilantro, cucumbers, dill, greens, lemongrass, okra, snap and sugar peas, squash, and yam leaves. Beekeepers were moving hives into seed alfalfa and melon fields.

July:

Small grains, sugar beets, silage corn, and wheat seed were harvested. Cotton and alfalfa hay were treated for aphids, mites, lygus, and worms. Table grapes, peaches, plums, nectarines, and asian pears were harvested. Almond hulls started to split and growers prepared for harvest. Harvesting of cantaloupe and processing tomatoes continued. Strawberry growers prepared fields for fall, as the spring season came to a finish. Valencia oranges and lemons were packed. Summer and oriental vegetable harvests were in full swing. Rangeland was dry and cattle feedlots were at 88 percent capacity.

August:

The small grain harvest was completed. Cotton growers irrigated and sprayed their plants for insects. Cotton bolls started to open. Rice growers prepared for harvest. Table grapes were packed, while raisin growers finished their last irrigation and started to lay fruit on trays. The stone fruit harvest continued. Almond growers had started to shake trees. Granny Smith apples were released for packing. Cantaloupes, honeydews, and watermelons were harvested. Fresh and processed tomato harvests continued. Fall lettuce was planted. The sweet potato and yam harvests started. Beets, basil, carrots, cucumbers, eggplant, garlic, mint, onions, peppers, radishes, squash, Swiss chard, and cherry tomatoes were harvested. The valencia orange harvest finished in the Sanger district but continued in Clovis and Reedley districts. Some growers prepared ground for new citrus plantings.

September:

A rainstorm in early September caused some damage to the raisin crop; a few raisins already on trays required reconditioning. Cotton bolls started to mature. Black-eyed beans, silage corn, and sugar beets were harvested. Zinnia fields planted for seed production were in full bloom. McIntosh apples were released for harvest. Fuji and Granny Smith apples were harvested. The table grape, juice grape, and wine grape harvests continued. Pomegranates, pistachios and figs were packed. The almond harvest continued. Olive producers sprayed and trapped for olive fruit flies in preparation for harvest. The cantaloupe harvest slowed. Cauliflower, broccoli, cabbage, and lettuce were planted. Fall lettuce fields were irrigated, weeded, and sprayed for worms. Strawberries were in bloom and growers irrigated and fertilized. The processing tomato harvest continued.

October:

On October 10, 2000, heavy rainstorms and isolated hail storms hit Fresno County, causing substantial damage to head lettuce, chinese broccoli, pomegranates, persimmons, alfalfa hay, cherry tomatoes, and green beans. Rice was harvested. Ground was prepared for planting winter forage. Cotton growers were defoliating fields and began to harvest. The table grape and raisin harvests were nearly completed. The cantaloupe harvest

finished, while the stone fruit harvest continued. Walnut, pomegranate, persimmon, quince, and apple harvests continued. The fall lettuce harvest started slowly. The valencia orange and olive harvests continued. The summer vegetable and oriental vegetable harvests continued. Strawberries were in production and being sold at roadside stands.

November:

Rain stopped work in fields and orchards. The rice harvest finished. Wet conditions slowed both ground preparation for winter forage and the cotton harvest. The raisin harvest ended this month. The lettuce harvest was slow, but showed good quality. Pomegranates, persimmons, quince, walnuts, almonds, and kiwifruit were harvested. The broccoli and cabbage harvests continued. Garlic fields were planted for the 2001 crop. The yam and sweet potato harvests came to an end. Navel orange, mandarin, and lemon harvests continued with good quality. Summer and oriental vegetable harvesting slowed. Rangeland grasses had started to turn green.

December:

Wheat and barley fields were planted and fertilized. The cotton harvest was completed. Stone fruit growers began to prune and pull dead and older, nonproductive trees from orchards. Apple, kiwifruit, and persimmon harvests continued. Grape growers were planting cover crops, adding soil amendments and fertilizing. Fall lettuce finished this month. Lettuce growers were preparing ground for spring planting. Broccoli, cabbage, and strawberry harvests continued. The following vegetables were harvested this month: basil, bok choy, chives, cilantro, napa cabbage, mustard and collard greens, green onions, parsley, peppers, spinach and Swiss chard. Navel oranges were harvested.

FIELD CROPS: The total gross returns for field crops increased by \$22,312,000 from \$485,640,000 to \$507,952,000. Cotton, the county's third most valuable crop, increased in value by 6.61 percent from \$332,472,000 to \$354,440,000. Cotton lint increased by \$16,793,000 and seed was up \$4,494,000. The Acala upland cotton harvest increased 75,000 acres while Pima cotton plantings were down 64.32 percent or 60,200 acres. The value of the barley crop was up 16.46 percent, or \$146,000, as a result of an increase in planted acreage and an \$11 per ton increase in value. Returns for corn grain were down \$1,977,000; silage corn increased in value \$2,512,000. Alfalfa hay decreased in value by \$2,790,000 because of a 10,100 acre reduction in plantings. The total value of the rice crop was down \$447,000 reflecting a 24.08 percent reduction in the price paid per ton. Safflower acreage was down 49.42 percent; the crop value decreased \$1,097,000. Wheat plantings were up 14,200 acres and the crop value increased from \$18,923,000 to \$24,395,000.

SEED CROPS: The total gross returns for seed crops decreased 19.07 percent or \$8,264,000. Certified alfalfa seed was down \$12,149,000 as a result of 8,600 fewer planted acres and reductions in yield and price. Certified cotton seed, up 1,300 acres, increased in value \$681,000.

VEGETABLE CROPS: The total gross returns for all vegetable crops decreased by \$91,041,000, or 10.32 percent to \$791,607,000. Asparagus, bell pepper, broccoli, and eggplant values were down. Fresh garlic decreased in value \$50,016,000 and processing garlic was down \$40,997,000, resulting in a 51.90 percent decrease in gross returns. Spring head lettuce was down \$17,531,000; fall head lettuce was up \$28,549,000. Tomatoes, number four on the county's top ten list, were down \$33,081,000; processing tomatoes, down \$36,288,000, were responsible for this loss. The value of the cantaloupe crop increased \$4,323,000 (5.82 percent) as a result of increased plantings and a 5.08 percent increase in yield. The honeydew crop more than doubled in value because of increases in both yield and price. Oriental vegetable production was down 3.39 tons per acre and plantings decreased 270 acres.

FRUIT AND NUT CROPS: The total gross returns for all fruit and nut crops increased \$53,641,800 from \$1,191,094,000 to \$1,244,735,800. The final price for raisin grapes has not been determined and will go to arbitration in late May and early June. The price used in this report is not intended to reflect the Department's opinion as to what the price for raisins should be, and is used only to accommodate the deadline for publishing this report. Cherries, not previously reported separately, had a value of \$17,282,000. The value of the orange crop increased 63.93 percent or \$35,376,000 after a \$69,563,000 loss in 1999 resulting from damage caused by freezing temperatures. The lemon crop increased in value from \$1,339,000 to \$2,137,000. The price for almonds increased \$520 a ton, but the total value of the crop was down \$910,000 as a result of a 500 pound per acre decrease in yield. Fresh apple production was down 16,900 tons while processed apples increased from 3,660 tons in 1999 to 18,500 tons in 2000. Decreases in apricot acreage, yield, and price resulted in a \$2,077,000 reduction in crop value. The crop values for peaches, plums, and nectarines were down: peaches 9.29 percent, plums 4.53 percent, and nectarines 9.89 percent. Even though the price of strawberries was down \$113 a ton, production increased 6.94 tons per acre, resulting in a crop value increase of 47.87 percent.

NURSERY: The total gross returns for nursery products decreased \$3,626,000 from the 1999 figure of \$32,530,600 to \$28,904,600. The number of herbaceous ornamentals (potted plants, bedding plants, flats and perennials) increased by 9,791,000 plants and was up \$1,728,000. The sale of christmas trees was down 34.12 percent. The other category, which includes bareroot fruit trees, citrus (budwood and trees), grape (rootings and cuttings), vegetable transplants, and turf, decreased in value \$5,934,000.

LIVESTOCK AND POULTRY: Total gross returns for livestock and poultry decreased \$92,123,000 from \$686,071,000 to 593,948,000. Cattle and calves moved from seventh to sixth on the county's top ten list when value increased to \$186,734,000. Lambs were up \$339,000 in value. The price per hundred weight for sheep increased \$2.84. Turkey production decreased by 1,880,000 birds.

LIVESTOCK AND POULTRY PRODUCTS: Total gross returns for livestock and poultry products decreased by \$24,615,000 to a total of \$207,036,000. Manure produced in the county was down 47.48 percent. The value of milk fell \$23,946,000 even though production increased by 767,000 hundred weight. Chicken, duck and turkey egg production increased 212,000 dozens and the value increased 20.17 percent.

APIARY PRODUCTS AND POLLINATION SERVICES: Gross returns for apiary products and pollination decreased \$1,665,000. The value of honey and beeswax increased by \$5,000. The total value of pollination services, which includes alfalfa seed, fruit and nut trees, and cantaloupes, fell \$1,670,000, as a result of a 43,600 acre reduction in alfalfa seed and a 9,200 acre reduction in cantaloupe seed.

INDUSTRIAL CROPS: Gross returns for industrial crops were up \$2,753,000. Timber sales increased 10,673,000 board feet while firewood sales were down 2,300 cords.

SUSTAINABLE AGRICULTURE

2000 BIOLOGICAL CONTROL ACTIVITIES

PEST	B.C. AGENT/MECHANISM	ACTIVITY
Yellow Starthistle (YST)	Hairy weevil (Eustenopus villosus sp.)	Most sites showed well-established populations that were spreading.
	Peacock fly (Chaetorellia sp.)	Specimens were not moved anywhere as the flies continued to spread rapidly on their own.
	Seedhead fly (Urophora sirunaseva sp.)	Surveys showed that it is present in most of the YST areas and is still expanding its range.
	Bud weevil (Bangasternus orientalis sp.)	Surveys showed that it is still present and expanding its range.

2000 DETECTION ACTIVITIES

INSECT	TRAPS DEPLOYED	RESULTS
Medfly	844	Seven sterile flies trapped
Mexican fruit fly	249	None captured
Oriental fruit fly	163	None captured
Melon fly	121	None captured
Gypsy moth	370	None captured
Japanese beetle	261	None captured
Olive fruit fly	1407	Eight hundred plus trapped
Glassy-winged sharpshooter	800	Four nurseries and numerous residences positive

SUSTAINABLE AGRICULTURE

PEST ERADICATION

RED IMPORTED FIRE ANT: Another infestation was found in Fresno County. This time in a rural area east of Clovis near Leonard and Shaw Avenue. True to form, this infestation had also started in an almond orchard, but unlike the other RIFA infestations in Fresno County, this one had spread to some nearby homes. Residents were the first to complain about stinging incidents in their yards. The infestation appeared to be at least 5-6 years old or older, as some of the mounds were quite large and it had spread some distance. It was treated once last fall and treatment will resume this spring.

GLASSY-WINGED SHARPSHOOTER: Glassy-winged sharpshooter (GWSS) was found well established in several areas of Fresno County. Sharp-eyed residents initially alerted us to the infestations and subsequent surveys turned up a few others. Over a thousand properties were found positive and treated for GWSS. Efforts will continue this year to further delimit the GWSS population with extensive surveys throughout the city.

OLIVE FRUIT FLY: This serious pest of olives turned up in Fresno County last year. The initial find was in Reedley, but county-wide trapping soon detected it in many areas of the city and county. Over 800 flies were trapped which was quite amazing since we trapped none the year before. The fly seemed to just explode throughout the county. The population is very well established and eradication efforts would be futile. Olive fruit fly is here to stay, so commercial olive growers will have to learn how to deal with them.

NEW AND UNUSUAL PEST OUTBREAKS IN 2000

RED GUM LERP PSYLLID (*Glycaspis brimblecombei*) continued to expand its presence in Fresno County. Many varieties of eucalyptus are showing severe stress due to this insect. Bio-control agents are on the way but have not yet been established here.

The second species of eucalyptus long horned borer has found its way to Fresno County. *Phoracantha recurva* was turned into the office last year but because of its close resemblance to *Phoracantha semipunctata* it was not realized at the time. A close inspection of the accumulated specimens eventually ferreted it out. This species also is a killer of eucalyptus trees but is now here without its parasitoids. Chances are it will do a lot of damage until some parasitoids are released.

2000 ORGANIC FARMING

Gross returns for organic farming in 2000 totaled \$18,530,000. A large variety of crops were produced in compliance with the California Organic Food Act of 1990. Seventy-eight farms totaling 8,442 acres and eighteen handlers (shippers/packers) were registered organic in Fresno County in 2000. Crops grown, packed, and shipped include alfalfa, almonds, apples, apricots, basil, beans, bell peppers, blueberries, boysenberries, broccoli, carrots, cattle, chard, cilantro, corn, eggplant, endive, fennel, figs, garlic, grapes, kiwifruit, leeks, lemon, lettuce, nectarines, nursery plants, olives, onions, oranges, parsley, peaches, peppers, persimmons, plums, pluots, pomegranates, radishes, raisins, shallots, spinach, squash, tangerines, tomatoes, turkeys, walnuts, watermelon, and wheat.